

January 2011

2010 MEETING OF THE COUNCIL OF FELLOWS  
OF THE COLLEGIUM RAMAZZINI

place: Carpi, Italy  
date: 23 October 2010  
time: 9:00 a.m.

Fellows present:

ANDERSON, HENRY	USA
ANWAR, WAGIDA	Egypt
BELPOGGI, FIORELLA	Italy
BERLIN, MATHS	Sweden
BINGHAM, EULA	USA
BRAUTBAR, NACHMAN	USA
CASTELEYN, LUDWINE	Belgium
CHRISTIANI, DAVID	USA
COGLIANO, VINCENT	France
CORDIER, SYLVAIN	France
CORRA, LILIAN	Argentina
CRANOR, CARL	USA
CRESPI, MASSIMO	Italy
DAVIS, DEVRA	USA
DE ROSA, CHRISTOPHER	USA
DOBBIN, DENNY	USA
EHRlich, RODNEY	South Africa
ENGLUND, ANDERS	Sweden
FINKELMAN, JACOBO	Mexico
FOA', VITO	Italy
FRANCO, GIULIANO	Italy
FRANK, ARTHUR	USA
FRONEBERG, BRIGITTE	Germany
GRANDJEAN, PHILIPPE	Denmark
GREENBERG, MORRIS	UK
HEINZOW, BIRGER	Germany
HOEL, DAVID	USA
HOWARD, CHARLES V.	UK
HRYHORCZUK, DANIEL	USA
HUSGAFVEL-PURSIANEN, KIRSTI	Finland
JAKUBOWSKI, MAREK	Poland
JOSHI, TUSHAR KANT	India

KILBURN, KAYE	USA
LANDRIGAN, PHILIP	USA
LONDON, LESLIE	South Africa
LUCCHINI, ROBERTO	Italy
MARKOWITZ, STEVEN	USA
McDIARMID, MELISSA	USA
MEHLMAN, MYRON	USA
MELIUS, JAMES	USA
MIRER, FRANKLIN	USA
MYERS, JONNY	South Africa
NGOWI, VERA	Tanzania
NORDBERG, GUNNAR	Sweden
PELCLOVA, DANIELA	Czech Republic
RICE, CAROL	USA
RICHTER, ELIHU	Israel
RINGEN, KNUT	USA
RUCHIRAWAT, MATHUROS	Thailand
SOFFRITTI, MORANDO	Italy
SORSA, MARJA	Finland
STRAIF, KURT	France
SUK, WILLIAM	USA
TEITELBAUM, DANIEL	USA
TOMPA, ANNA	Hungary
VAN DAMME, KAREL	Belgium
VINEIS, PAOLO	UK
WEDEEN, RICHARD	USA
WHITE, ROBERTA	USA
WOLFF, MARY	USA
XINTARAS, CHARLES	Greece

Total number of Fellows present: 61

In attendance:

Enrico Campedelli, Mayor of Carpi

Kathryn Knowles, Collegium Ramazzini General Secretariat

Jill Brazier, Honorary Fellow

The President welcomed Fellows to the 28<sup>th</sup> edition of Ramazzini Days and declared the meeting open.

### 1. Apologies for Absence

As of 21 October, 86 members had written to the General Secretariat to apologize for their absence from the meeting (**Enclosure 1**). Fellows were reminded that it is helpful for the General Secretariat to receive regrets prior to 15 September of each year, the same deadline as for event registration.

## **2. Adoption of the Minutes of the 2009 Council of Fellows**

The minutes of the Council of Fellows Meeting held on 24 October 2009 in Carpi were formally adopted by unanimous vote. The minutes had been sent to all Fellows in December 2009 and again for review in October 2010 prior to Ramazzini Days.

## **3. Mayor's Welcome and Medal Ceremony**

The Mayor of Carpi delivered a brief welcome address, translated by Kathryn Knowles. The Mayor stated that the annual hosting of the Ramazzini Days was a source of great satisfaction for the Town of Carpi. He also discussed the connection between the work of the Collegium Ramazzini and the decisions he must make as a local administrator, topics ranging from asbestos removal to the positioning of cellular phone receptors to the control of air pollution.

The President thanked the Mayor for his hospitality and offered the technical support of the Collegium on any scientific matters the local administration may face.

The meeting proceeded with the traditional medal ceremony. 3 members who had not previously been to Carpi were presented with their silver Ramazzini medals by the President, Secretary General and Mayor as follows:

KIRSTI HUSGAFVEL-PURSIAINEN, Finland  
 VERA NGOWI, Tanzania  
 GUNNAR NORDBERG, Sweden

## **4. President's Report**

### 4.1 Obituaries

This year the Collegium lost three of its members. President Landrigan read brief obituaries, noting the diversity of the specializations of the three colleagues. Fellows were asked to stand and a minute of silence was held to honor the following Fellows:

Emeritus Fellow Prof. János Sugár (Hungary), 27 January 2010  
 Emeritus Fellow Prof. James C. Dooge (Ireland), 20 August 2010  
 Fellow Dr. Jenny Pronczuk De Garbino (Uruguay/Switzerland), 20 September 2010

Professor János Sugár, Emeritus Fellow of the Collegium Ramazzini, passed away on his 88th birthday on January 27th, 2010. His teaching and research activity spanning more than 50 years in pathology departments of medical universities was particularly esteemed for his diagnostics of tumor pathology. He was head of the pathology department of the Research Institute of the National Oncology Institute from 1974 until 1992. His professional, scientific, teaching and science policy activities have been widely recognized over the years with numerous distinctions such as the Academy Prize of 1988, or the Order of the Star embellished with the Golden Wreath awarded by the Hungarian Republic. His interest focused on determination of pre-neoplastic processes, reversible and irreversible phenotypic and more recently genotypic characterization. He was the first to describe electron microscopic microinvasion preceding real invasion occurring in serious dysplastic tumors in skin, laryngeal, breast and gastroenteric pre-cancerous states.

Emeritus Fellow of the Collegium Ramazzini James Clement Dooge passed away at his home in Dublin on August 20, 2010. Dr. Dooge was an Irish politician, engineer, climatologist, hydrologist and academic. Dooge had a profound effect on the debate on climate change, in the world of hydrology and in politics in the formation of the European Union. Dooge lived a multifaceted existence with his roles including a period as Irish Minister for Foreign Affairs, Acting President of Ireland (Presidential Commission (Ireland)), Chairman of the report which led to the Single European Act and the Treaty of Maastricht, Chairman of the Irish Senate, Professor of Engineering in UCC and UCD, President of the International Council for Science, President of the Royal Irish Academy and Chairman of the Irish Film Board.

He worked as an expert consultant to a wide range of specialized United Nations agencies including UNESCO, World Meteorological Organization (WMO), United Nations Environment Programme (UNEP), and the United Nations Food and Agriculture Organization (FAO). He also acted in an expert consultancy role to DGXII (Research) at the European Commission.

He is best known in Ireland as only the second Senator to be appointed to the cabinet. In the world of academia and hydrology he is known for his numerous publications in the field with unit hydrograph theory developed by Dooge in 1959 and is generally regarded as a pioneer in the field. His work in Europe through the Dooge Committee led to the formation of the SEA and the Treaty of Maastricht.

Upon his death in 2010, UNESCO-IHE described him as a "towering figure and pioneer in hydrology" whilst the Chancellor of the NUI, Dr. Maurice Manning, described him as "that rare phenomenon in Irish life, a public intellectual whose life was devoted, without posture, to the public service." Professor John Sweeney who was one of the scientists as part of the Intergovernmental Panel on Climate Change honoured with the Nobel Peace Prize in 2007 described him as "perhaps one of the most important, prolific and distinguished scientists of the past generation."

Fellow of the Collegium Ramazzini Jenny Pronczuk de Garbino passed away in Geneva, Switzerland on September 20 at the age of 63. A tireless champion for children's environmental health, she inspired people around the world to take action to protect children from environmental hazards. Her infectious laugh, indefatigable spirit, and superb judgement will be greatly missed.

Dr Pronczuk de Garbino was originally from Montevideo, Uruguay, where she trained as a physician at the School of Medicine, Universidad de la Republica, completing post-graduate studies in Clinical Toxicology and in Occupational Health. She also trained at the Université de Paris, Lariboisière - St Louis (Hôpital Fernand Widal, Paris, France) and, through a Fulbright Scholarship, at the Medical Center in Houston, Texas. In Uruguay, Dr Pronczuk de Garbino was appointed Head Professor of Clinical Toxicology and Director of the National Poisons Centre in Montevideo.

She joined the World Health Organization (WHO) in 1991 and worked actively to promote chemical safety, setting up poison centres and medical toxicology training. In 1999 she set up the WHO Task Force on the Protection of Children's Environmental Health; one major outcome of the Task Force was that at the World Summit on Sustainable Development in 2002 the WHO announced a global Healthy Environments for Children Alliance.

She convened numerous meetings and expert workshops that brought children's environmental health issues to the attention of policy makers, health educators, physicians, nurses, and others. She planned and coordinated the 1st International Conference on Children's Environmental Health in Bangkok, Thailand, in 2002, which released the Bangkok Statement, a call for action to protect children from environmental threats. In 2005

she organized the 2<sup>nd</sup> International Conference on Children's Environmental Health in Buenos Aires, Argentina and in 2009 she organized the 3rd International Conference on Children's Environmental Health in the Republic of Korea. After her retirement from WHO in June 2009, she continued her active support of the global children's environmental health movement, and was elected Treasurer of the International Society for Children's Health and the Environment (ISCHE) in February 2010. In 2008 she was recognized by the US Environmental Protection Agency as the International Children's Environmental Health Champion.

#### 4.2. Membership status

As of 22 October, the number of Fellows and Emeritus Fellows on the roster was 170 and 33, respectively. As provided in the bylaws, membership in the Collegium Ramazzini is limited to 180 active members. There is no lower limit for the number of active members nor is there a limit for the number of Emeritus Fellows.

The President had requested of the General Secretary and staff to examine the list of the 170 Fellows and evaluate three things: 1) participation in the life of the Collegium; 2) attendance at the annual meeting in Carpi; 3) payment of annual dues. Based on this analysis, the Executive Council identified 21 Fellows who had not been active in the Collegium on any of the above counts for at least five or more years. It was determined that these members would receive letters from the General Secretariat; some would be invited to apply for Emeritus status (not automatic), others would be asked to return to the Collegium in 2011 or to consider deactivating their membership to make room for a new generation of Fellows.

The President invited all Fellows to consider nominating colleagues who represent the next generation of scientists, specifically the Collegium is looking for younger members, more women and more representation from the global south.

The previous evening the Executive Council had examined the request of Dr. Peter Wardenbach to obtain a change in membership status and had agreed to afford him Emeritus status. The overall membership distribution following this decision was therefore 169 active Fellows and 33 Emeritus Fellows.

#### 4.3. Nominations

The President reminded Fellows of the procedure for nominating candidates for membership in the Collegium.

Nominations for membership in the Collegium Ramazzini should be submitted electronically to the Office of the General Secretary prior to August 1st for consideration during the Annual Ramazzini Days meeting in October. For each candidate, in addition to his or her short curriculum vitae, the nominator(s) shall provide to the Office of the Secretary General a one-page presentation of the following information:

- 1) a summary of the candidate's background and achievements in his or her area of work;
- 2) a statement on the role and contributions of the candidate toward fulfilling the mission of the Collegium "to advance the study of occupational and environmental health issues and to be a bridge between the world of scientific discovery and the social and political centers which must act on the discoveries of science to protect public health";

3) an indication of the commitment of the candidate to the work of the Collegium Ramazzini, including the likelihood of his or her ability to attend meetings.

Each nomination must be seconded in writing (electronically) by another Fellow of the Collegium Ramazzini. Nominations are considered valid for a period of 3 years; updated information about the candidate may be submitted on an annual basis.

President Landrigan reported that the Executive Council had reviewed this year's list of nominees (10 total), together with those deferred from 2008 and 2009 (14 total). The full CVs and recommendation letters of all candidates had been circulated to the membership in advance of the Ramazzini Days meeting.

The Executive Council had given careful consideration to each of these nominees and following three hours of discussion, selected 9 candidates for membership and one special candidate for Emeritus status.

The names of the newly elected Fellows were read by the Chair:

- ISTAVAN EMBER, Hungary
- ROBERT J. HARRISON, USA
- AMALIA LABORDE, Uruguay
- LAURA WELSH, USA
- RUTH ANN ETZEL, USA
- SARI KOVATS, UK
- LESLIE THOMAS STAYNER, USA
- APTULLAH MURAT TUNCER, Turkey
- HEMANTHA D. WICKRAMATILLAKE, Sri Lanka
- LAUREN ZEISE, USA

Special Emeritus status was offered to:

- BENEDETTO TERRACINI, Italy

The Council of Fellows applauded these choices.

The full membership roster and mailing list would be updated with new members and with any changes indicated by members during Ramazzini Days and subsequently distributed to all members electronically (**Enclosure 2**).

#### 4.4 Elections

The President noted there are no elections scheduled for 2010. In 2011, elections will be held for the office of President and for 3 Councillors. The seats which will become vacant are those currently occupied by Drs. Melius, VanDamme and Crespi. Drs. Melius and VanDamme have indicated their willingness to run for re-election.

The President highlighted that any member of the Collegium Ramazzini is eligible to run for office and any member may nominate another for election as provided by the bylaws. The deadline for nominations is 1 September 2011. The procedures and deadlines for elections were distributed to Fellows in their meeting materials (**Enclosure 3**).

#### 4.5 Activities of the Collegium Ramazzini

The President noted that it had been a very busy year for the Collegium, in particular in the continuing struggle against asbestos.

One highlight was the conference on asbestos in New Delhi, India organized last December by TK Joshi, Arthur Frank and others. The mayor of Delhi, members of the federal government, the Dean of the medical school and many academics were present. The conference clearly attracted interest because the Indian asbestos association took out a full page ad in the Times of India to denounce the event. Ringen and Englund led the effort to produce a scholarly document on strengthening safety and health in the construction industry. Asbestos use is still growing in India, by the measure of 10-12% a year.

Following the meeting the Collegium wrote a strong, detailed letter to the then-mayor of Delhi, Sheila Dikshit, to cease the use asbestos in the construction agency. Although her jurisdiction is limited to Delhi, it is the 8<sup>th</sup> largest city in the world.

Another important action undertaken this year was the publication of a renewed call for the global ban on asbestos, an effort spearheaded by Emeritus Fellow Joe Ladou. Ladou was very tenacious in assuring the maximum visibility of the statement and was able to achieve publication of the article in over 15 international journals, including the Journal of the Canadian Medical Association, an interesting result given that Quebec remains one of the top three producers of asbestos in the world.

The statement and a list of the journals where it was published (which Landrigan noted as a veritable “who’s-who” of the field), was distributed to Fellows in their meeting materials. Landrigan noted that this kind of coverage makes a difference and that the Collegium should be proud of this accomplishment. He thanked Ladou once again for his work.

Arthur Frank contributed that this is a battle that is my no means won. Some Fellows may be following the situation of the mines in Quebec, the latest ploy is that a group of Indian investors wants to put up the capital to keep the mine open. The situation is complicated as it turns out that several members of parliament are also owners of cement factories where asbestos is used. The fight is not yet won, but a ban now exists in over 50 countries and some Fellows continue to work very hard on this front, especially in the United States.

Landrigan noted that in the past year the Collegium had written to the Canadian Cancer Society which had in turn sided with the Collegium and issued a statement against asbestos, an action which represented a major reversal for them. The Collegium had also written to the Minister of Health of the Province of Quebec, Yves Bolduc. Landrigan read aloud the response from Bolduc’s staff assuring the Collegium that its letter “will receive all the attention that it merits and that a response will be sent without delay”.

Elihu Richter shared that in Canada there is a strong community of human rights lawyers, lead by Erwin Cutler. There is also a similar group working in India. He would like the see the Collegium approach these lawyers about the human rights implications of Canada exporting a known hazard. Fellows Castleman, Frank, Richter and other have looked upon the asbestos products as a variant of ecocide, that is, *wilfully* exporting a known hazard. There is a body of international law which is developing around this question and there are people in the Canadian parliament who could be persuaded to run with the issue. Richter

underlined that there is peer-reviewed literature on the subject, not just “long-haired people running around Greenwich village”.

Landrigan invited Richter to be the one to create a bridge between the Canadian lawyers he mentioned and the Collegium Ramazzini.

Richter continued that in parallel with the human rights approach there is another, more practical approach, laying out a list of substances which are viable alternatives to asbestos. Barry Castleman has done work in this area. Richter feels that this approach needs to be followed-up much more aggressively.

Landrigan asked if this work had been published in a single, authoritative article that lays out the argument.

Frank added Castleman had presented numerous times on the topic and that he himself would be doing so in Asia in November. Frank agreed that it is a good idea to try to publish a review article on asbestos substitutes.

Landrigan suggested that the review article should specify for each different use of asbestos what the potential alternatives could be. He also suggested that the cost issue be laid out, both in terms of immediate and delayed costs, in particular with the construction manager in mind.

Kaye Kilburn made a plea to not focus backward, but also to look toward other emerging problems, for example the issue surrounding bitumen that has emerged following the BP disaster, as well as the problems related to squeezing fuel out of shale. He cited an example of a civil rights approach in Alberta, Canada where a farmer has not been able to use his own land due to high concentrations of hydrogen-sulfide in natural gas. Kilburn planned to appear in a hearing in Alberta in November on this civil rights matter. Kilburn would like the Collegium to take a stand on the bitumen issue that he feels is a disaster in the making and put together a statement. He noted that Canada may yet set itself aside and prove to be the most forward-looking county in terms of civil rights.

Danny Teitelbaum expressed concern that if the Collegium begins to write papers on the construction industry, which he feels is outside the body's area of expertise, then their opinion will not be respected. He suggests working with the Society of Engineers and sharing health concerns with them so that the position is expressed from within. He cited the example of automobile brakes, saying that unless it is the Society of Engineers to write that ceramic brakes are better, then the point will continue to be ignored. He repeated that the Collegium should consider dedicating energy and time to other matters rather than construction where they are not experts.

The President noted that the notion of collaborating with engineers is valid; he added that it is overstated to say that Collegium does not have expertise in construction given the work of Fellows like Englund and Ringen.

Ringen echoed the President in saying that the Collegium is not poor in expertise in the area of construction. He invited the group to look toward the example of Ramazzini who was not limited to the research of toxic substances or just certain industries. Ringen added that if we are not concerned with all industries and all families then we are doing a disservice to the intent of the Collegium.

Karel Vandamme opened by saying that we had made tremendous progress in the struggle against asbestos, noting that in the EU there is general prohibition of the use of asbestos, a clear victory. He warned that we need to be very careful about promoting substitutes without being sure of potential effects. Some alternative industries support the battle against asbestos for opportunistic reasons, without carefully evaluating the safety of alternatives.

Kurt Straif contributed to the discussion with a report from two meetings in which he had recently participated. The first was held on the UN premises in Bangkok, organized by the UN environmental program. The meeting was endorsed by WHO and IARC and participants included officials from almost all countries in South East Asia. The purpose of the meeting was to promote the idea of the Rotterdam convention and to get all countries, including Russia and countries in the SE Asia region to sign on. He considers the meeting a success. The second meeting was even more daunting, held in October in Moscow and organized by the NGO Women for the Environment. Collaborators included the UN Rotterdam Convention Secretariat, ILO, WHO and a few representatives from Russian ministries. It seems that Russia may be willing to sign onto the Rotterdam Convention in 2011, as early as the next meeting in June. In terms of substitutes, the WHO had been asked by the Rotterdam convention - who then turned to IARC - for a report. Fellow Vince Cogliano worked on this project and the report is available under "Rotterdam Convention". It is a tricky issue to discuss the safety of substitutes.

Berger Heinzow intervened to raise the point that asbestos is not a matter of the past. He believes that the issues of the future are: 1) the recycling of construction materials and the subsequent release of asbestos substances into the air; and 2) that it has been shown that protective gear for workers is not sufficient. He suggests that these are two areas where the Collegium can take future action.

The President closed the discussion on the asbestos and introduced the other main topic of the year, the statement produced for the European Parliament on biocides. He invited Philippe Grandjean to summarize the efforts.

Grandjean reminded Fellows that about a year ago the Collegium issued a statement on pesticides. The statement was well received and the decision of the European Union reflected to some degree the recommendations of the Collegium. What then happened was that this summer the Council received a proposal to regulate biocides (contained in toothpaste, cleaning products etc). Some of the compounds in biocides are similar to those contained in the statement on pesticides and the principles for regulating use of these substances are very similar. Grandjean called this issue to the attention of the Executive Council of the Collegium and although the timeframe was insufficient to generate an official CR statement, it was agreed to issue and circulate a short recommendation on biocides, based on the same principles laid out in the pesticides statement.

The recommendations were sent by the Secretary General's office to every single member of the European Parliament and to many NGOs. It was also posted on the CR website. Many NGOs put out their own press releases and the main reference was to the statement of the CR with a link to the website. The feedback was very positive and NGOs were pleased to have the Collegium speaking up on the science behind the debate. Grandjean received a note from the Vice Chair of the Environment Committee noting that the CR recommendations had been reflected in the votes. The first review had taken place and the issue had moved on to the

next level. Fellow Vyvyan Howard and others had taken the initiative to send the recommendations to their national representatives.

Grandjean believes that this experience illustrates that the Collegium Ramazzini has a role to play in policy. The upcoming REACH authorization may be the next opportunity to voice a position on chemicals control. He would like to see a new committee within the Collegium to address these issues.

*[Update: In December 2010 the EU Environment Ministers adopted an agreement on biocides. The issue will now return to the Parliament with further discussions in the fall of 2011 following a legal check.*

*The Collegium Ramazzini statement appears to have had an impact on the Ministers' decisions. For example, it is now stated that biocides must not have any unacceptable immediate or delayed effect on human health, including of that of vulnerable groups; and possible effects on vulnerable groups also have to be considered in risk assessment (which could result in stricter limits). EU Environment Ministers also included some recommendations for nanobiocides. Ministers however took a step back on restricting developmental neurotoxic and immunotoxic biocides: they did not include them in the substitution list, which would have helped facilitate safer alternatives. Their agreement now states that products with developmental neurotoxic and immunotoxic biocides are not for sale to the general public, but there is an exemption that leaves the door open to get around these restrictions.]*

Landrigan updated the group on the chemical control situation in the United States. A new Toxic Chemicals Safety Act promoted by Congressman Waxman (CA) and Senator Lautenberg (NJ) has been drafted; policy will however be conditioned by the results of the mid-term congressional elections in November. Landrigan feels that chemical policy in the US is a disaster; the Toxic Substances Control Act was passed in 35 years ago with 2 goals, to regulate the 62,000 chemicals that were then on the market and to create a structure to properly regulate new chemicals that came to the market. In the case of the 62,000 chemicals that were on the market in 1976, about a month after the new law was passed all chemicals were declared blessed and safe for use. Of the 20,000 chemicals that have come to market since then, only 5 have been banned. Landrigan feels that the US has to do better and has been looking to REACH as a model.

Heinzow suggested REACH as a future meeting topic, noting the US could potentially learn from EU in this case.

Lilian Corra noted that the issue of pesticides/biocides should be extended beyond EU to the international level, with recommendations also to the UN agencies which should be working on the issue such as FAO, WHO and UNEP. The next meeting of the International Conference on Chemical Management is coming up, she would like to encourage the CR to take action in the planning of the meeting. Corra represents NGOs and noted that that the health NGOs involved in this area are very few. Her challenge is to engage these actors in the active preparation of the meeting.

Pesticides is one of the 150 topics in the global plan of action, but there are many other topics on the chemical safety agenda. Corra feels that pesticides do not receive enough attention and that no funds are being dedicated to education in this area. She proposes a Collegium task force to help extend the message globally.

Franklin Mirer spoke on the question of anti-microbial agents. In the US they are regulated as pesticides to the degree that the EPA does the regulation. Several (2-3 main classes) of these biocides are heavily used in cosmetics such as shampoo, so there is major human exposure and skin contact. They are also used heavily in metal working fluids. The fact is that these agents have not been bioassayed, they have not even been subjected to a 90-day inhalation studies. Mirer added that they are exempt from the Toxic Substances Control Act because they are regulated under another Act. He believes it is important not to focus on the 80,000 chemicals that we don't know anything and to not this be a distraction from the several dozen that we do know present a clear and present danger and where we don't yet have adequate data to introduce regulation.

Vyvyan Howard presented the letter from the UK minister's representative in response to the biocides recommendation. He passed it around for Fellows to read how one can say nothing in 8 paragraphs. He said that he would send the letter to the Secretary General for inclusion in the archives.

Kaye Kilburn noted that the sad thing about biocides is that they are always in mixtures so it will be difficult to learn anything from human exposure experiments currently being conducted. He cited the widespread use of hand sanitizers with isopropyl alcohol and says that he has not found toxicity studies for daily use of this substance. He would like the Collegium to take a general stand about biocides. Kilburn then cited the examples where advertising has promoted the widespread use of substances that we know to be harmful such as plastic water bottles and phthalates, vinyl chloride and others.

Myron Mehlman noted that there are quite a few toxicity studies on isopropyl alcohol and offered to share these results.

Teitelbaum noted that there may be an odd direction of assistance in the biocides area. The EPA has become interested in fracking fluids, particularly the materials being used in oil and gas exploration. These are high pressure fluids injected into subsurface to crack the rock and release pockets of gas. Biocides are used to protect the fluids, expensive organic materials that would otherwise breakdown, much like metal working fluids. It seems odd that something almost esoteric like fracking fluids may be the trigger for more research and funding in this area, but it may turn out that the lack of information on biocides in fracking fluids (which are exempt from the Toxic Substances Act,) may suddenly turn out to be a problem recognized by the US Congress in upcoming hearings. Fracking fluids have become a major water supply question in the Western US.

Landrigan noted that fracking fluids are becoming an issue in the Eastern US as well, in particular in Pennsylvania and New York.

#### 4.6 Future programming

The President opened the discussion on future programming beginning with the items listed on the meeting agenda. The first is the draft statement on migrant labor lead by Knut Ringen already in advanced stages; the second is a request, also spearheaded by Ringen, to begin work on a CR statement on nanomaterials; the third is an initiative by Denny Dobbin calling for work to be done on the health of aging workers.

Ringen updated the Fellows on the progress of the CR statement on migrant workers. In 2009 a scientific session was held in Carpi to address the health risks faced by migrant

workers. Speakers included Sheng Wang (China), Raul Harari (Ecuador), Krisna Rampal (Malaysia) and Knut Ringen (US). Following this session the Collegium encouraged the creation of a CR statement on this topic and an informal working group was created. A first draft was circulated to the Fellows and important feedback was received from Fellows such as Silbergeld, Harari and Heinzow, which then lead to the current version distributed to the Fellows prior to the meeting.

1/3 of world's population depends extensively for their livelihood on remittances from workers who leave their homes in search of work. Whether they do that for economic reasons or are forced to, they enter into a situation in which both workers and their families face very significant health risks that the Collegium feels need to be addressed. Most of these migrants (between 700-800 million in the world) are domestic migrants, meaning that they have moved from the countryside to the cities. In China the numbers of domestic migrants are expected to reach 350 million by the middle of this century. Very little has been done to deal with the health and safety of migrants.

We know that international remittances now total circa 350 billion dollars annually and that this is the second largest source of foreign finance for developing countries. This is indeed the aspect that is being emphasized by most of the international agencies. Very little is being done to look at the negatives of migration, specifically safety and health concerns. This is instead the focus of the Collegium Ramazzini statement which has four broad recommendations for the international community: 1) recognize that migration within countries creates risks and should be considered in addition to international migration; 2) balance economic benefits of migrant labor against the adverse safety and health risks; 3) do a better job of characterizing the safety and health needs of migrant workers; and 4) strengthen international and institutional protection of migrants. From these goals the statement derived three other recommendations about what international agencies ought to be doing to address these issues. Ringen believes the statement is fairly complete and recommends its adoption

David Christiani commented that the statement is outstanding and long-overdue. He noted that a statement of the OECD cited at the beginning of the document is 17 years old and seemed out-of-date. Ringen responded that it is the last statement that has tried to balance risks and benefits. The majority of migration has occurred since the 1990s with the liberalization of trade. Most recent work, notably by the World Bank, has focused on the economic benefits of migration.

Devra Davis pointed out that the references could be updated, especially with regard to the plight of women and families. In particular the sex-trade is a growing issue. Davis concluded that she fully supports the statement.

Arthur Frank made a procedural suggestion to adopt the statement in principal, however to allow for a 2-week period for further comments to Knut Ringen. Landrigan agreed.

Marja Sorsa suggested rewording the call for action on page 6. Otherwise she feels that the document is very straightforward. Specifically she feel that the call for action citing the "plight of migrant workers and their families" gives the idea that only men are working. Sorsa mentioned that a major problem is also that of pregnant migrant women who are also working and who may be unaware of the possibilities to obtain in support in their new countries.

Ringen added that point is well taken and that there is a section on the special needs of women on page 4, but that this issue can be better addressed with new wording.

Rodney Ehrlich noted that in South Africa there is the belief that migration underlies the spread of HIV infection. An interesting area of advocacy that has come up recently is the fact that migrants often carry the infections across borders; they get sick in their host country and return home to the poorest countries to be treated by inadequate health systems. An example is tuberculosis and the mines. Ehrlich suggests finding some way to address this in the document and introduce the idea of regional responsibilities for health care.

Ringen responded that it is a very good point, one that is not limited to international migration but also true for workers in Beijing who get sick and have to return to their home villages to be treated.

TK Joshi would like to see attention given to the problem of child workers employed as migrant labor. Ringen responded that there is a special section dedicated to children on page 4 of the document.

Richter noted that the three largest illegal economies of the world are trafficking in women, drugs and arms. The three trades also involve the same players and actors. He says that it may be that we have our hands on one leg of a horrible octopus and to truly be effective we will have to create networks with those who deal with the other horrible legs.

Teitelbaum complimented the authors but noted that there is no mention of xenophobia, a source of some of the problems for migrant workers. He noted that Italy, the US and Germany have all had terrible problems in this area. He suggests adding a sentence in which we acknowledge that some of the problems related to migrant workers arise from international xenophobia, a common factor of human existence.

Ringen responded that the point is not included in the document but was discussed in the session last year; everyone wants the cheap labor but no one wants the problems.

Carol Rice pointed out that the procedures for making comments on statements is clearly outlined in the document written by Gregory Wagner and included in the 2009 meeting minutes.

Fiorella Belpoggi raised the point that it is not a given that the people who most need to read Collegium Statements (such as unions and others involved in labor), necessarily understand English. She promoted the translation of statements into other languages for wider distribution and volunteered to do so in Italian. She encouraged other Fellows to do the same.

Landrigan concluded the discussion summarizing that the consensus is that the statement has been accepted by the Collegium but will remain open for a few weeks for minor revisions which should be sent directly to Ringen. Landrigan invited Ringen to think about a dissemination strategy as Ladou did with the asbestos statement.

[Coffee break]

The President reopened the session with the news that during the break Grandjean, Casteleyn and others had agreed to form a working group on chemical safety and that Ludwine Casteleyn had graciously agreed to chair the group.

Landrigan called the Fellows attention to the nanomaterials discussion draft distributed prior to the meeting. He noted that some Fellows, such as Vyvyan Howard, are very involved in this topic on the EU level. He invited Ringen to summarize his proposal.

Ringen opened by saying he is not the most qualified member of the Collegium to speak on the subject of nanomaterials but that he is presenting the proposal on behalf of the workers who are likely to be exposed. His own concerns were raised after a presentation by Peter Licthy who pointed out that there are now three substantial toxicology studies indicating that at least carbon nanotubes appear to act very similar to asbestos. The industrial application of nanomaterials is running far ahead of scientific understanding. What has been done so far has dealt with laboratory workers and some manufacturing workers, but hardly anything at all with regard to end users. Those end users are primarily construction workers and consumers of various kinds. We know little about the magnitude or extent of this risk. Ringen notes that there is not a better body of experts on fibers and particles around than that of the Collegium and would like to propose that the Collegium establish a committee of experts from the membership to write a statement geared at tying to get the international occupational health community to give the issue of nanomaterials the attention it deserves.

Eula Bingham agreed that the issue is very important. She shared that 8-10 months ago she was asked to be on an EPA committee on risk assessment on nanoparticles. She noted that most of the working group members were interested in making nanoparticles and looking at their physical characteristics. When it came time to vote on the most important things to do in terms of protecting people and doing risk assessment, it all came down to looking at the physical/chemical characteristics of nanos. And around number 7 or 8 on the list was doing some toxicology. Bingham said that she was appalled; those [interested in production] are the people that came, they are the ones calling the shots. It is really important that the Collegium put something out on this topic and have a call for epidemiology and toxicology. Not to say that there are not studies out there, however if you look at the SOT meeting agenda there are very few. She added that some Fellows were talking about where nanoparticles are located...such as silver in socks to protect them from bacteria...and then you put them in the dryer and all the particles come off. Let's characterize the particles, but let's also do the epidemiology and the toxicology.

Vyvyan Howard informed the Fellows that 60%-70% of his group's work is on nanotoxicology and that they have received 2 big European grants in this area. A year ago Howard was approached by WHO Europe. It is interesting that WHO has not yet said anything about nanotechnology, but they commissioned Howard to prepare a report. The report is now in phase of first peer review and should be presented in November by Marco Matucci. Howard noted that a lot of the work is done and perhaps the Collegium could endorse his report and put out their own statement about why they endorse it, without going through a full statement process.

In terms of human exposure there is nanosilver in clothes, nanoparticles in cosmetics and sunscreens, and one use that is creeping up is nanoparticles in fuel additives, increasing engine efficiency by 20%, and already starting to be detected in road surfaces.

Bingham interjected that the defense is that each nanoparticle has its own unique physical and chemical properties, so we have to study each one. We need to come to terms with that. Landrigan agreed that this is similar to the pesticides defense. He also noted that the Collegium shouldn't close the door to producing its own nano document.

Howard suggested that he recommend the Collegium as one of the referees for the report. Landrigan agreed.

Franklin Mirer mentioned that he had organized a conference for the national nanotechnology initiative and wrote a column for the Synergist on nanomaterials. He believes the CR statement should focus on the fact that we know that inhalation of nanoparticles is carcinogenic and likely to be fibrotic. There is a huge database; full-size titanium dioxide is still a carcinogen. Carbon black (low-tech carbon nanotubes) is also carcinogenic by inhalation. Mirer is not sure about the literature on silver nanoparticles, but does not believe that they have been subjected to a 90-day inhalation study.

Mirer stated that we know that titanium dioxide is a carcinogen and that's what is in the cosmetics and also in the paint. The hazard identification step of nanoparticles, at least by inhalation, is a settled question and the only remaining issue is potency and exposure response. Diesel particles are also nanoparticles, they are just not engineered. To concede not knowing enough about the problem weakens the CR position. We can say it is unlikely that carbon nanotubes are less potent than carbon black; NIOSH has almost released a reference concentration on nano-size titanium dioxide, which is modestly aggressive. To start with uncertainty is the wrong way to start. We have certainly, but there is a refusal to act. An organized program of 90-day inhalation studies would enable us to move forward.

Arthur Frank said that drug companies are starting to look very seriously at nanos in pharmaceuticals. Another issue of concern is that colleagues tell him that there are no good measuring techniques and if you've got nanos in the workplace, it isn't like measuring for asbestos or coal or silica particles. Nanos are so small that the measurement techniques don't exist.

Howard responded that measuring techniques do exist, but they are weight, an index which is generally useless. You have to either go for a number or total surface area of particles, the thing that is related harm. You can indeed do that, but they don't.

Frank added that when you talk about exposure in the workplace the standard used to measure is important and needs to be talked about.

Kirsti Husgafvel-Pursiainen informed Fellows that at that at the Finnish Institute of Occupational Health there are several large, EU-funded projects on engineered nanomaterials which have been going on for the last 5 years, focused very much on toxicology. This includes cellular work, animal work, physical work, and inhalation studies in an aerosol laboratory. The program is run by Professor Kai Savolainen and there will be a whole thematic area established as of the 1<sup>st</sup> of January. The project involves several millions of euro of consortia. There is therefore a lot of data either coming out or already partially published.

Vandamme cautioned that the Collegium should be aware, in whatever topic we are approaching, be it pesticides or nanomaterials, that we must avoid taking positions on declaring substances "less harmful" or "not harmful". The Collegium is there to fight when we know substances are harmful and to see that people are protected against that harm and ban substances. He would not like be confronted as a Collegium in 10-20 years with the fact that we promoted a substitute that could turn out to be carcinogenic. Policy making is not our role, our role is instead to be critical about what is happening.

Teitelbaum noted that he has 4 doctoral students working with grants on nanoparticles, in particular aquatic toxicology. It is very clear that silver and cadmium nanoparticles are intensely toxic to the lowest members of the aquatic food chain, which implies potentially terrible damage to fish stalks and sea mammals. They are looking at nanoparticles transmitted from waste water systems; there are no filtration systems that trap nanoparticles and they they wind up in surface waters.

Landrigan asked if this contributes to the killing of the reefs; Teitelbaum responded that it would make sense. Most nanoparticles that Teitelbaum's group is seeing are domestic particles past through wastewater (shampoo, sunscreens ecc).

Bill Suk commented that the drug industry is already using nanoparticles for drug vaccine delivery; the interesting thing is that in this case nanos are not considered a chemical, but rather a device. As such they are less stringently regulated by the FDA. Within the US Superfund program many people are using nanopatforms in remediation techniques. NIEHS has been trying to work with the Department of Defense to determine the efficacy and whether or not we are creating more of a problem by using nanopatforms in remediation. We do not yet have any data on that but it is a whole other area that the CR may want to look at. Suk then volunteered John Bucher (who was not present) for a Collegium committee on nanos because the National Toxicology Program has a multi-million dollar set of studies going on nanos and the determination of their toxicity both *in vivo* and *in vitro*.

Landrigan noted that this is a good opportunity for contact between Bucher/NTP and the colleagues in Finland.

Jim Melius brought attention to page 6 of the discussion draft. He feels what is really missing is action in this area. If the way we are going to protect workers and consumers exposed to nanomaterials is simply by added a label that says "containing nanomaterials", then we are missing something. If one goes to conferences such as the recent NIOSH meeting on nanomaterials, one hears the same arguments from industry that we heard about asbestos and benzene ad naseum. Melius believes the Collegium needs a statement that calls for action in protecting people against these exposures before it is too late.

Lillian Corra echoed the need to take action. She said we must keep in mind that the intergovernmental program on chemical safety in 2008 and the international chemical management conference of SAICM in 2009 made recommendations on which governments reached agreement. We need to review these documents and go and work along one of these lines. One recommendation was to promote an international code of conduct that companies give information on the content of nanoparticles. Corra added that nanos is one of the emerging issues of SAICM and the strategic approach of UNEP (United Nations Environment Program).

Kilburn raised the need to undertake prospective studies of worker groups; these types of studies have practically lost support everywhere and yet they do offer the best way –silica and asbestos are examples of "accidental" prospective studies that have shown the way – some deliberate studies may be appropriate here and could be part of the CR recommendation.

Morris Greenberg offered that this is a case to apply the precautionary principle, not waiting upon more toxicology studies, not waiting for 40 years for epidemiological studies. He called

for a policy now for how to treat highly reactive particles, both biologically and chemically. If we know nothing else other than that, precaution is pressing.

Grandjean said the CR needs to find its own feet, what is it that the Collegium wants to say about nanotechnology in a statement? We are trying to focus a problem and make some recommendations, but we are also defining ourselves in this game and in these discussions that are happening right now. He called attention to a recent report from SCENIHR, the Scientific Committee on Emerging and Newly Identified Health Risks of the European Commission. The report essentially says everything that is already in Ringen's draft; it is an excellent starting point. He also mentioned a recent paper in *Nature* by Steffen Foss Hansen, Joel Tickner and others on precautionary approaches to nanotechnology. There is a whole lot of literature out there. What we need to figure out is how do we recommend steering through this stormy ocean in regard to reaching fair decisions on the use of nanotechnology in safe ways with regard to future generations too. Are we going to focus on the construction industry which is one possibility? Are we focusing on research, like Kilburn suggests? Are we focusing on regulation? We need to condense this and express our view so that people will say this is the CR, academics who are recommending a precautionary approach in a logical way.

Landrigan summarized that the strongest message emerging from the discussion is the need for precaution. He agrees that the CR needs to talk about the need for more research, but that should not be used as an excuse to impede intervention. We need to thread the needle and get it right. Landrigan has mixed feelings about using the words "precautionary principle", but the thought should be there.

Ringen said he thinks the Collegium should use the precautionary principle rather than be scared of it. The overwhelming credentials of the membership in this area ought to lead the Collegium to some action items, practical actions to recommend. Some are listed on page 6 of the discussion draft. He concluded saying that those of us who have to deal with workers on this need to get some real guidance, and we are not getting it.

Heinzow added that there is a technical issue in the discussion and agrees that by using the term "precautionary principle" we may not achieve what we want to. He would like to stress the need to put nanoparticles in a broader perspective and by just by focusing on workers, we may miss the environment. It should be stressed that workers are the guinea pigs in this technology, the population at highest risk. He added that another issue that should be stressed is the likelihood that the effects of nanoparticles have a long latency and acute toxicity testing and the usual approach of toxicity will not help us to solve the problem.

Kurt Straif endorses the precautionary principle but nevertheless believes that we should engage in some research. He has been trying to set up a large cohort on nanomaterial-exposed workers. The main problem is to identify relatively large, stable, exposed workforces. Most of it is still R&D, the process changes if you come back half a year later. The other big problem is that industry tries to keep a hand on it. Straif is concerned about what is going on in the US; at the NIOSH meeting there was strong participation from industry and industry-friendly epidemiologists. There are big studies taking off soon in the US and there will surely be a strong influence from industry. Straif invited Fellows who have access to some suitable, exposed workforces to let him know as IARC would be interested in setting up international cohort without industry influence. If we wait for 10 years and then do a retrospective study, we have the same old problems regarding exposures. How was the situation in 2010? He stressed the need to do exposure measurements now, start registries

and then do prospective cohort studies. We can also do many other things like looking for inflammation markers and other intermediary effects that we know from asbestos to make this a useful exercise and not have to wait for 10 years.

Marja Sorsa noted that Ringen already stated very wisely and clearly what she would like to endorse. We need to find our own road as the Collegium Ramazzini. It is natural to start from the precautionary principle for us since work has already been done on this. The situation is such that the CR must be in this game on nanotechnologies, because without us they will continue with accelerated speed. We need evidence - medicine must be based on evidence. We do need toxicology data, we do need to be quick enough on this train for building cohort studies. It is not going to be easy, but we need to combine methodologies for exposure assessment. The Collegium could already easily now form a network of experts in nanotechnology in various fields. We must give open information to everybody, because this is the world of today. Be open and inform each other as soon as possible.

Carol Cranor worries about the context in which nano development occurs and notes that it is driven by moral philosophy. It is very difficult to get past a market-based world view of the world. Things come into the market and then we worry about what problems they pose. It seems to him that we have an opportunity to change this when thinking about nanotechnology. At the end of the discussion draft there are some points made about pre-market certification. As part of the statement the Collegium could adopt the point that we are recklessly charging ahead and we don't know anything about this technology. People here have stated that we do know something and it doesn't look good. We have several carcinogens, we need to call attention to that. We can use this as an occasion to get people thinking about precautionary steps without using that language. Instead of using precautionary language we can talk about how "reckless" the policies are at present and that we need to move in the direction of much more sensible and prudent policies in the future, testing these things before children, workers etc are exposed.

Landrigan recalled the term irrational exuberance: asbestos, DDT, chlorofluorocarbons, phthalates, all show the same human tendency to want to charge ahead and worry about consequences later.

Ringen made the recommendation to proceed with 3 working groups that can put together parts of a complete statement. The groups could focus on :1) what we know now (Mirer's points); 2) what we need to know (research questions); and 3) what we should do now to protect people as fully as possible. These three questions have very different expertises attached to them, so it may make sense to have separate 3 groups working.

Landrigan closed the discussion on nanomaterials by suggesting that interested Fellows get together at lunch to begin mapping out a strategy. He named Ringen, Melius, Bucher, Teitelbaum, Husgafvel-Pursiainen, Howard and Cranor. Landrigan reminded Fellows of the importance of committee work because the life of the Collegium continues the other 363 days of the year while not in Carpi.

Denny Dobbin shared his suggestion for a future meeting topic on the aging workforce. With the aging of the baby boomer generation all sorts of complex workforce issues have arisen around older workers. He believes the Collegium should take this on as a scientific session and potentially a statement. People are living longer and the economic crisis means that people are postponing retirement. Even though public policy has looked at how to finance retirement, very little has been said about what happens to older workers in the workplace.

We know from the Bureau of Labor statistics in the US that there is an increasing trend in fatalities in older workers. We also know that takes older workers longer to return to work once they are seriously injured. We have had a national academy study led by my Fellow David Wegman in 2004 to look at this and the committee came up with a list of research projects. There is so much we don't know and it affects a huge number of people.

Melissa McDiarmid informed the group that the topic for the 2011 scientific session has not yet been determined, however there are also practical aspects in determining how a topic is selected.

In closing the President's report, Landrigan announced that Devra Davis and others would like to work on producing a statement on children and cell phones. Landrigan reminded Fellows of the procedures for creating a statement as outlined in the Wagner document.

## **5. Secretary General's Report**

### 5.1 Activities of the Collegium Ramazzini

Secretary General Morando Soffritti highlighted the success of the December 2009 New Delhi meeting with more than 300 participants, mainly Indian colleagues. He noted that another event will be held in New Delhi in March.

In 2010 the General Secretariat was involved in the distribution of the asbestos statement, published in many journals as already mentioned by the President. Soffritti complimented Ladou and mentioned that this effort was as successful as the first call issued in 1999 which at the time had been published in about 11 journals.

The General Secretariat has also been involved in the organization of an upcoming meeting scheduled for 17-18 November 2010 in Pécs, Hungary, named this year as a cultural capital of Europe. Our colleague István Ember of the University of Pécs invited the Collegium to organize a symposium during the International Conference of Preventive Medicine and Public Health. The symposium is entitled "Hot Issues in Environmental and Occupational Carcinogenic Risk" and about a dozen Fellows will be participating as speakers. Soffritti feels that this conference is important for opening up relations with colleagues in Eastern Europe.

On the topic of new conferences, Soffritti reminded Fellow that during last year's Ramazzini Days the membership had discussed a proposal to organize a regional conference in Latin America, in either Uruguay or Argentina. Although one of the forces behind this proposal, Dr. Jenny Pronzuck, is no longer with us, the Executive Council would like to begin work on this event in her honor.

Soffritti invited Joshi to present a summary of the New Delhi meeting and to outline the scientific program for March. Joshi began by thanking Arthur Frank for his help in organizing the event and for the support of Drexel University. The conference had welcomed 52 international delegates from 21 countries, including 35 Fellows.

Ever since TK started coming to Europe he has been trying to convince his colleagues about the need to have a department of occupational medicine in medical schools. He shared that the CR conference finally opened the eyes of many colleagues on this point. Joshi received feedback from many local participants that it was the best conference they had ever attended in India on occupational medicine. Joshi thanked the participating Fellows as well as Carol

Rice and Melissa McDiarmid for putting together an excellent scientific program. He noted that WHO had also decided to participate at the last moment once they saw that the conference was taking shape. The WHO brought participants and physicians from neighbouring countries such as the Maldives, Sri Lanka and Nepal which was very important since the conference had an Asian focus.

The conference was very well perceived and the minister of New Delhi noted that it was the first conference that she attended which was “for the people”. Joshi believes that is the best compliment he received. The Collegium is now better known in India and the level of expertise that was brought was really an eye opener. Joshi’s colleagues were in awe of the level of presentations made.

Following the conference the Ministry of Labor expressed interest in creating a specific meeting on occupational respiratory diseases. This conference is now being planned for 22-24, March, 2011 entitled “Emerging Trends in Preventing Occupational Respiratory Diseases and Cancers in the Workplace.” Topics for study include: 1) pneumoconiosis due to inorganic dust such as silica, coal, hard metal dust; 2) disorders associated with organic dust exposure such as asthma and byssinosis; and 3) cancers in the workplace.

Between 300 and 350 participants are expected to attend. Joshi extended the invitation to participate to all Fellows, mentioning that the conference can afford to cover the hospitality expenses of about 20-22 Fellows. Joshi also asked Fellows for help in setting up a scientific committee as soon as possible.

Birger Heinzow noted that he had spoken with Joshi about adding the topic of the Bhopal disaster and pulmonary disease to the conference.

Joshi thanked Anders Englund and Knut Ringen for organizing the important symposium on construction safety and health. He said that his Indian colleagues were very interested to learn about the health problems associated with this industry because until now they had primarily focused on safety.

Englund mentioned that the symposium ended in the request for a white paper which was subsequently created thanks to Knut Ringen. He asked Joshi to report on how this white paper has been used.

Joshi replied that the paper had been presented to the Secretary of Labor and that one very important follow-up of the conference is that no asbestos was used in the construction for the Commonwealth Games. For the March meeting Joshi plans to set up meetings with government officials to continue discussing health and safety in construction.

Landrigan suggested that Joshi formally report this triumph for public health to the Secretary General so that it can be shared via the Collegium website. He congratulated Joshi on this result.

Devra Davis noted that a similar success story occurred in China prior to the Olympics where the use of asbestos was banned in the construction of the Olympic village. She offered to help write a report on these public health successes.

Soffritti closed the Secretary General’s report by reminding Fellows that the European Journal of Oncology welcomes the publication of presentations and posters from the Annual Ramazzini Days. This is an important way to diffuse the work of the Collegium, also for colleagues who were not able to be present.

Grandjean reminded the Fellows that we need to especially thank Joe Ladou for his excellent work on the asbestos statement. Landrigan agreed saying that Ladou was truly the catalyst for the project and that the Collegium owes him a huge debt of thanks.

## 6. Treasurer's Report

By way of introduction to the Treasurer's report the President made opening remarks to frame the discussion. He noted that for many years the Town of Carpi has provided support to the Collegium in two ways: a cash contribution averaging 25/30K euro and support in-kind including the use of meeting rooms, drivers, logistics and staff work. In 2010 for the first time the City was forced to cut off their cash support of the conference. This year the Collegium was able to manage thanks to the support of the Ramazzini Institute, however it is unlikely given the present economic situation that the Town of Carpi will be able to reinstate this cash contribution. The Collegium therefore needs to think about strategies for maintaining the financial health of the organization and specifically covering the costs of the annual meeting.

### 6.1. Financial Report

Treasurer Nachman Brautbar directed Fellows to the financial report included in the meeting materials (**Enclosure 4**). Overall, as a result of the special campaign undertaken in 2010, we have seen a significant increase in dues collected. The Office of the Treasurer had invested about \$5,000 in manpower and time to try to clear the books and collect membership fees from all the Fellows. The result was the collection of \$26,000, compared with only \$9,500 in 2009. As a result, the Collegium is in good financial health and was able to support travel with \$6,500 and assist the Ramazzini Institute with \$20,000. What is going to happen next year is of course unclear as it is not feasible to undertake another special collection campaign.

Brautbar therefore requested that Fellows to pay dues as early as possible, as this helps us plan for unexpected emergencies, such as this year with the reduced contribution from the Town of Carpi.

### 6.2. Future considerations

In order to maintain the health of the Collegium and the continuity of the meetings, the President suggested a strategy for dividing the Organization's income into several streams. Stream number 1 would continue to be membership dues, but there may be some wisdom in reducing the dues to \$150 (currently \$200 USD). At the same time, we could request that those Fellows who are in a position to be reimbursed for their travel - meaning people who work for government, universities, etc - to contribute a to-be-determined sum of money to the Treasurer. Landrigan suggested the figure of €250 because that is the amount that was calculated to help cover the hospitality expenses for spouses/guests. Landrigan clarified that people who are self-employed or from nations with distressed currencies will not be asked to bear this burden, but people who can (because they are reimbursed), should. The final stream could be then be donations from those who are able and feel compelled to support the Collegium in this way. The President summarized his proposal as reducing dues, charging for room and board where reimbursable, and requesting donations as generosity allows.

The President appointed three Fellows to study the question: Henry Anderson, Carol Rice and Nachman Brautbar.

Arthur Frank asked the Treasurer how many of the 170 Fellows contributed to the \$26,000 dollars collected. He recalled that last year only 45 Fellows had paid. Frank pointed out that there was supposed to be a committee to evaluate “good standing” in the organization. People who have no good reason for not paying dues for many years should be noted, and that this may be a way of opening up more slots for membership. Frank would like to speak against the idea of lowering dues. He does not feel you will get more people to pay \$150 who couldn’t pay \$200, a fee that is modest when compared with most organizations. Frank would also like to remind the group then when the dues increase was passed several years ago, the additional \$100 was supposed to be strictly dedicated to a travel fund for colleagues in need.

Landrigan and Brautbar noted that the Executive Council had indeed reviewed the financial standing of all members the previous evening. In response to Frank, Brautbar reported that 95 Fellows had paid dues to date, but that this number did not include in-person payments received in Carpi.

Bill Suk noted that many organizations have sliding scales for dues based upon GNP of the country of residency.

Henry Anderson suggested that next year’s online registration form give the option of a “registration fee” which is usually reimbursable whereas a donation is not.

Knut Ringen congratulated the Treasurer on his excellent effort and urged the membership to accept his report.

Landrigan thanked Soffritti for the fundraising efforts in Italy which allowed the Collegium to hold the meeting as planned in 2010.

Heinzow mentioned that he thinks it is a shame that still only half of the members are paying dues. He suggested that to reduce the burden on the Town of Carpi that the meeting be held on a biannual basis.

Landrigan responded that there had been some email traffic on this topic. One proposal was to reduce the frequency of the meeting to every other year. The consensus was that this idea was unwise because an annual meeting was already infrequent and the ties that hold us are already tenuous. Another proposal was to alternate locations, one year in Carpi and one year elsewhere. The consensus was that it made sense both psychologically and spiritually to hold the meeting in Carpi.

### 7.3 New payment procedures

*As of January 2011, the Collegium Ramazzini has added PAYPAL to its website to accept payments for annual membership fees and donations to the Jubilee fund. Payments can also be made using major credit cards. PAYPAL will automatically convert any foreign currencies to US dollars.*

*Eventual arrears may be also be settled online by selecting the corresponding option (up to 5 years). Questions regarding payment status and requests for receipts should be directed to the office of the Treasurer [brautbar@aol.com](mailto:brautbar@aol.com).*

## 8. Other business

Bill Suk reminded the group that in 2009 there had been a discussion about what the Collegium should be doing in terms of education and training. Following some email exchange a document was put together by the Education and Training Committee, with a thematic focus on chronic, non-communicable diseases as a way of looking at environmental and occupational exposures and what is becoming epidemic (**Enclosure 5**).

Suk is bringing this proposal to the group as a starting point to request input and suggestions for what is sure to be an ongoing issue. He directed the group's attention to a list at the end of the document noting areas which could be pursued; Suk believes that education and training are best accomplished with an interdisciplinary approach, based on areas of expertise.

Suk invited Fellows to contact him and the committee with ideas about how to approach training, potentially within existing programs and conferences, such as during the upcoming New Delhi meeting. Suk also cited the example of some Mount Sinai staff and other Collegium members who will be going to Thailand under the auspices of the Collegium to do some training courses with Mathurous Ruchirawat in January.

Suk noted that there are many, many ideas. The question is how to coordinate the efforts, what should be the focus, what will be the outcomes and how will they be evaluated. The present document is focused on college level and beyond, but really we should be looking at this issue as a knowledge stream beginning in elementary education.

Devra Davis suggested that Suk's proposal could also be revenue-generating by tying it to continuing medical training, a requirement in most of the world and particularly at the US. His second point was that because of the financial crisis around the world today we should try to move the Collegium to the internet. It is not difficult to do, you can use a web cam, you can make available an audio feed, which could be happening for example for the Council of Fellows session. In this way we would be able to substantially increase participation for those colleagues who have difficulty in getting to Carpi. Davis encouraged the committee to fully take advantage of the online systems which can be used to enhance training and education.

Corra believes that everyone has the capacity and experience to train and that many Fellows are already doing so. Corra would like to see a survey undertaken to unite all of these capacities and languages under the same umbrella. A survey will also be helpful to identify the interest of Fellows in participating in this program.

Ehrlich commented that he runs a large general MPH program and that it is very difficult to get the next generation interested in occupational health, environmental health to a lesser extent. The strategy from a theoretical and tactical point of view of linking our concerns with those of non-communicable, chronic disease is a very important one. One of the points of entry is biological. There is a new paradigm emerging in life course epidemiology which is taking a developmental approach to chronic disease. By the time you reach middle age it's too late because everything happens in utero to start with. There is some very exciting work on epigenetics etc. Ehrlich believes that if the work coming out on developmental impacts of environmental agents could be integrated with the concerns of chronic disease epidemiology, such as energy balance and nutrition, it could be an important point of entry for newcomers.

Wagida Anwar would like to recommend that the Collegium support a series of training courses in developing countries which could be combined with other conferences already planned in the region. Anwar cited a recent experience with training during the Pan African

Environmental Mutagen Society meeting in South Africa. These courses could be labelled Ramazzini and would be very helpful for end users in the region.

Landrigan noted that this type of project had been undertaken in the past, but not yet in the Middle East. Training courses had been set up in SE Asia thanks to a collaboration with the Chulabhorn Institute. The conferences in India in 2009 and Ecuador 2006 are other examples.

Anwar noted two potential upcoming opportunities in her region: the 6<sup>th</sup> conference of EMS in Doha, Qatar in 2012 the 7<sup>th</sup> Pan African conference scheduled in Cairo.

Landrigan encouraged Anwar to suggest dates and logistics to the office of Secretary General.

Mathurous Ruchirawat encouraged the Collegium to adjust the content of training programs based on different geographic and regional needs. She added that the Chulabhorn Institute is in the position to organize programs with the Collegium, also planning for a cycle of three or more years. She mentioned available support to bring speakers from the Collegium as well as setting up fellowships to invite local speakers from the region.

The President thanked Ruchirawat for her generous offer.

Straif mentioned that he is scientific director of the IARC summer school geared toward students from low-medium income countries and supported by fellowships. He invited Fellows to recommend students interested in epidemiological methods for the program saying it is a great opportunity to come to IARC for 2 weeks and make connections with other scientists.

Massimo Crespi presented the leaflet produced by the Mediterranean Task Force for Cancer Control, recently translated into Hungarian with the addition of the Collegium Ramazzini logo. The purpose of the leaflet is to raise awareness on screening and prevention.

## **9. Dates of 2011 Ramazzini Days**

Next year's Ramazzini Days will be held in Carpi on 29-30 October 2011, with arrivals foreseen for the evening of Friday 28 October.

The General Secretariat and Ramazzini Institute are working to plan a special visit to the home of Professor Maltoni, now Museum Maltoni, in Bologna on October 28<sup>th</sup> for those Fellows able to anticipate their arrival in Bologna. The event and luncheon will commemorate 10 years since the death of the Founder of the Collegium and will allow Fellows to meet some of the volunteers of the Ramazzini Institute who have been supporting the Collegium with fundraising initiatives for the last 25 years.

The President declared the meeting of the Council of Fellows closed at 1.00 p.m.

Enclosure 1: Apologies for absence

Enclosure 2: Roster of Fellows and Emeritus Fellows as of January 2011

Enclosure 3: Procedures for the election of Collegium Ramazzini Officers

Enclosure 4: Financial Statement 2009-August 2010

Enclosure 5: Report of the Education and Training Committee

# **REGRETS RAMAZZINI DAYS 2010**

	<b>LAST NAME</b>	<b>FIRST NAME</b>	<b>DATE</b>	<b>NOTES</b>
1	AHLBOM	ANDERS	18/09/2010	
2	ANDREWS	JOHN	01/09/2010	
3	ARAKI	SHUNICHI	09/09/2010	
4	AU	WILLIAM	08/09/2010	
5	BAILAR (Emeritus)	JOHN	23/07/2010	
6	BIRNBAUM	LINDA	28/07/2010	
7	BLAIR	AARON	18/09/2010	
8	BODEN	LES	18/09/2010	
9	BUCHER	JOHN	18/09/2010	
10	BULAT	PETAR	27/08/2010	
11	CASTLEMAN	BARRY	14/08/2010	
12	CHEONG	HAE-KWAN	25/09/2010	
13	CHERNIACK	MARTIN	04/10/2010	
14	COMBA	PIETRO	20/10/2010	cancelled registration
15	DONNELLY	TOM	04/10/2010	cancelled registration
16	ELLINGSEN	DAG	20/09/2010	
17	FALK	HENRY	20/09/2010	
18	FORASTIERE	FRANCESCO	22/10/2010	cancelled registration
19	FROINES	JOHN	24/07/2010	
20	FUCIC	ALEKSANDRA	has written to Dr. McDiarmid	
21	GEE	DAVID	15/10/2010	cancelled registration
22	GOCHFELD	MICHAEL	09/10/2010	
23	GOLDMAN	LYNN	11/10/2010	
24	GOLDSTEIN	BERNARD	18/09/2010	
25	GRAZIANO	JOSEPH	19/09/2010	
26	GUO	YUE-LIANG LEON	26/09/2010	
27	HARDELL	LENNART	20/09/2010	
28	HAY	ALASTAIR	01/10/2010	
29	HOGSTEDT (Emeritus)	CHRISTER	14/09/2010	
30	HUFF	JAMES	20/09/2010	
31	INFANTE	PETER	21/09/2010	
32	JACKSON	RICHARD J.	16/09/2010	
33	JARVHOLM	BENGT	19/07/2010	
34	JENSEN	TINA KOLD	11/10/2010	
35	KATSOUYANNI	KLEA	21/09/2010	
36	KELSEY	KARL	18/09/2010	
37	KOGI	KAZUTAKA	20/09/2010	
38	LADOU (Emeritus)	JOE	18/09/2010	
39	LANGARD	SVERRE	24/09/2010	
40	LANPHEAR	BRUCE	29/07/2010	
41	LEMEN	RICHARD	17/10/2010	cancelled registration
42	LERMAN	YEHUDA	02/09/2010	
43	LEVIN	STEPHEN	19/09/2010	
44	LIOY	PAUL	18/09/2010	
45	LYNGE	ELSEBETH	18/09/2010	
46	MCGLASHAN (Emeritus)	NEIL	25/07/2010	
47	MELNICK	RONALD L.	20/09/2010	
48	MISRA	USHA KANT	20/09/2010	
49	NATALI	PIER GIORGIO	07/10/2010	cancelled registration
50	NEEDLEMAN	HERBERT L.	19/09/2010	
51	NEFEDOV (Emeritus)	OLEG M.	19/08/2010	
52	NEWMAN	LEE	23/07/2010	
53	NIEMEIER	RICHARD W.	14/09/2010	
54	NUWAYHID	IMAN	20/09/2010	
55	OKUBO	TOSHITERU	26/07/2010	
56	OMENN	GIL	23/07/2010	
57	OZONOFF	DAVID	18/09/2010	
58	PAEK	DOMYUNG	24/09/2010	
59	POJE	GERALD	15/10/2010	
60	POTT (Emeritus)	FRIEDRICH	13/09/2010	

61	RITZ	BEATE	18/09/2010	
62	ROGAN	WALTER	26/07/2010	
63	ROSENMAN	KEN	18/09/2010	
64	RYDZYNSKI	KONRAD	20/09/2010	
65	SAMUELS (Emeritus)	SHELDON W.	23/07/2010	
66	SARDAS	SEMRA	19/09/2010	
67	SASCO	ANNIE	20/10/2010	cancelled registration
68	SASS	JENNIFER	19/09/2010	
69	SILBERGELD	ELLEN	09/08/2010	
70	SLY	PETER	26/07/2010	
71	SONGNIAN	YIN	19/09/2010	
72	SOSKOLNE	COLIN	23/07/2010	
73	TAKAHASHI	KEN	20/09/2010	
74	TAKALA	JUKKA	22/09/2010	
75	TARKOWSKI	STANISLAW	12/10/2010	cancelled registration
76	TASKINEN	HELENA	01/08/2010	
77	TOREN	KJELL	02/09/2010	
78	UPTON (Emeritus)	ARTHUR C.	23/07/2010	
79	VAINIO	HARRI	02/08/2010	
80	WAGNER	GREGORY	02/10/2010	cancelled registration
81	WANG	JUNG-DER	19/09/2010	
82	WARDENBACH	PETER	wants to retire from CR	
83	WATTERSON	ANDREW	30/08/2010	
84	WEGMAN	DAVID	20/09/2010	
85	WESSELING	INEKE	23/07/2010	
86	XIA	ZHAO-LIN	16/10/2010	cancelled registration
87	YANO	EIJI	01/09/2010	

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JANUARY 2011**

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PROCEDURES FOR THE ELECTION OF COLLEGIUM RAMAZZINI OFFICERS  
PROVIDED FOR IN THE BYLAWS

I TERMS OF OFFICE OF EXECUTIVE COUNCILLORS

PRESIDENT: 5 years:  $2006 + 5 = 2011$

SECRETARY: 7 years:  $2008 + 7 = 2015$

TREASURER: 4 years:  $2009 + 4 = 2013$

COUNCILLORS: 4 years:  $2007 + 4 = 2011$  (3 councillors)  
 $2009 + 4 = 2013$  (3 councillors)

II PROCEDURE FOR THE NOMINATION AND THE ELECTION OF EXECUTIVE COUNCIL OFFICERS, AS ESTABLISHED IN THE BYLAWS

Suggestions for nominations of officers may be sent in writing by Fellows, BY 1ST SEPTEMBER OF EACH THIRD YEAR

(nominations valid when submitted with petition of 20% of Fellows)

(Art. V, Section 4)

The Executive Council shall propose candidates, for consideration of the Fellows, NOT LATER THAN SEPTEMBER OF EVERY THIRD YEAR

(Art. V, Section 3)

The election of officers SHALL TAKE PLACE AT THE ANNUAL MEETING OF THE COUNCIL OF FELLOWS

(Art. V, Section 1)

Voting by the Fellows MAY BE CONDUCTED BY MAIL IN THE EVENT AN ANNUAL MEETING IS NOT HELD, OR IF A QUORUM IS NOT PRESENT AT SUCH A MEETING

(Art. V, Section 6d)

(30% Fellows shall constitute a quorum: Art. VIII, Section 3)

COLLEGIUM RAMAZZINI, INC.  
(A NONPROFIT ORGANIZATION)  
FINANCIAL STATEMENTS - CASH BASIS  
FOR THE YEARS ENDED AUGUST 31, 2010 AND 2009

COLLEGIUM RAMAZZINI, INC.  
(A NONPROFIT ORGANIZATION)  
FINANCIAL STATEMENTS - CASH BASIS  
FOR THE YEARS ENDED AUGUST 31, 2010 AND 2009

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COLLEGIUM RAMAZZINI, INC.  
UNRESTRICTED FUND  
(A NONPROFIT ORGANIZATION)  
STATEMENTS OF ASSETS, LIABILITIES  
AND NET ASSETS - CASH BASIS  
AS OF AUGUST 31, 2010 AND 2009

	<u>AUGUST 31, 2009</u>	<u>AUGUST 31, 2010</u>
<u>ASSETS</u>		
<u>CURRENT ASSETS</u>		
Cash	\$ 2,758	\$ 23,727
Receivable from Restricted Fund	<u>17,642</u>	<u>          </u>
TOTAL CURRENT ASSETS	<u>20,400</u>	<u>23,727</u>
<u>PROPERTY EQUIPMENT:</u>		
Computer	1,488	1,488
LESS: Accumulated Depreciation	<u>(633)</u>	<u>(931)</u>
TOTAL PROPERTY & EQUIPMENT, NET	<u>855</u>	<u>557</u>
<u>TOTAL ASSETS</u>	<u>\$ 21,255</u>	<u>\$ 24,284</u>
<u>LIABILITIES AND NET ASSETS</u>		
<u>LIABILITIES</u>		
Payable to Restricted Fund	\$	\$ 3,000
<u>NET ASSETS</u>		
<u>NET ASSETS-UNRESTRICTED FUND</u>	<u>21,255</u>	<u>21,284</u>
<u>TOTAL LIABILITIES AND NET ASSETS</u>	<u>\$ 21,255</u>	<u>\$ 24,284</u>

See Accompanying Accountant's Compilation Report.

COLLEGIUM RAMAZZINI, INC.  
UNRESTRICTED FUND  
(A NONPROFIT ORGANIZATION)  
STATEMENTS OF REVENUE, EXPENSES  
AND NET ASSETS - CASH BASIS  
FOR THE YEARS ENDED AUGUST 31, 2010 AND 2009

	<u>AUGUST 31, 2009</u>	<u>AUGUST 31, 2010</u>
<u>REVENUE</u>		
Direct Public Support	\$ 1,667	\$ 2,604
Membership Dues	9,568	26,632
Interest Income	<u>86</u>	<u>34</u>
<u>TOTAL REVENUE</u>	<u>11,321</u>	<u>29,270</u>
<u>EXPENSES</u>		
Accounting	3,100	4,900
Bank Charges	50	321
Bookkeeping	510	3,015
Office Expense	72	57
Depreciation Expense	298	298
Payment to Affiliates	8,000	2,000
Consulting Service	5,000	9,000
Special Projects	3,000	3,250
Transportation Support Expense	<u>5,300</u>	<u>6,400</u>
<u>TOTAL EXPENSES</u>	<u>25,330</u>	<u>29,241</u>
<u>CHANGE IN NET ASSETS</u>	(14,009)	29
<u>NET ASSETS - BEGINNING OF YEAR</u>	<u>35,264</u>	<u>21,255</u>
<u>NET ASSETS - END OF YEAR</u>	<u>\$ 21,255</u>	<u>\$ 21,284</u>

See Accompanying Accountant's Compilation Report.

COLLEGIUM RAMAZZINI, INC.  
(A NONPROFIT ORGANIZATION)  
COMBINING STATEMENTS OF ASSETS, LIABILITIES  
AND NET ASSETS - CASH BASIS  
AS OF AUGUST 31, 2010 AND 2009

COLLEGIUM RAMAZZINI, INC.  
(A NONPROFIT ORGANIZATION)  
COMBINING STATEMENTS OF ASSETS, LIABILITIES  
AND NET ASSETS - CASH BASIS  
AS OF AUGUST 31, 2010 AND 2009

AUGUST 31, 2009

ASSETS

<u>CURRENT ASSETS</u>	<u>UNRESTRICTED</u>	<u>PERMANENTLY RESTRICTED</u>	<u>COMBINED</u>
Cash in Bank	\$ 2,758	\$	\$ 2,758
Cash in UBS		169,275	169,275
Mutual Funds at Cost		23,963	23,963
Receivable from Restricted Fund	<u>17,642</u>		
<u>TOTAL CURRENT ASSETS</u>	<u>20,400</u>	<u>193,238</u>	<u>195,996</u>
<u>PROPERTY &amp; EQUIPMENT:</u>			
Computer	1,488		1,488
LESS: Accumulated Depreciation	<u>(633)</u>		<u>(633)</u>
<u>TOTAL PROPERTY &amp; EQUIPMENT NET</u>	<u>855</u>		<u>855</u>
<u>TOTAL ASSETS</u>	<u>\$ 21,255</u>	<u>\$ 193,238</u>	<u>\$ 196,851</u>

LIABILITIES AND NET ASSETS

<u>LIABILITIES</u>		\$ 17,642	
<u>NET ASSETS</u>			
<u>UNRESTRICTED</u>	\$ 21,255		\$ 21,255
<u>PERMANENTLY RESTRICTED</u>		<u>175,596</u>	<u>175,596</u>
<u>TOTAL NET ASSETS</u>	<u>21,255</u>	<u>175,596</u>	<u>196,851</u>
<u>TOTAL LIABILITIES AND NET ASSETS</u>	<u>\$ 21,255</u>	<u>\$ 193,238</u>	<u>\$ 196,851</u>

AUGUST 31, 2010

ASSETS

<u>CURRENT ASSETS</u>	<u>UNRESTRICTED</u>	<u>PERMANENTLY RESTRICTED</u>	<u>COMBINED</u>
Cash in Bank	\$ 23,727	\$ -	\$ 23,727
Cash in UBS		144,881	144,881
Mutual Funds at Cost		24,164	24,164
Receivable from Unrestricted Fund		3,000	
<u>TOTAL CURRENT ASSETS</u>	<u>23,727</u>	<u>172,045</u>	<u>192,772</u>
<u>PROPERTY &amp; EQUIPMENT:</u>			
Computer	1,488		1,488
LESS: Accumulated Depreciation	(931)		(931)
<u>TOTAL PROPERTY &amp; EQUIPMENT, NET</u>	<u>557</u>		<u>557</u>
<u>TOTAL ASSETS</u>	<u>\$ 24,284</u>	<u>\$ 172,045</u>	<u>\$ 193,329</u>

LIABILITIES AND NET ASSETS

<u>LIABILITIES</u>	\$ 3,000	\$	\$
<u>NET ASSETS</u>			
<u>UNRESTRICTED</u>	21,284		21,284
<u>PERMANENTLY RESTRICTED</u>		172,045	172,045
<u>TOTAL NET ASSETS</u>	<u>24,284</u>	<u>172,045</u>	<u>193,329</u>
<u>TOTAL LIABILITIES AND NET ASSETS</u>	<u>\$ 24,284</u>	<u>\$ 172,045</u>	<u>\$ 193,329</u>

See Accompanying Accountant's Compilation Report.

COLLEGIUM RAMAZZINI, INC.  
(A NONPROFIT ORGANIZATION)  
COMBINING STATEMENTS OF REVENUE, EXPENSES  
AND NET ASSETS - CASH BASIS  
FOR THE YEARS ENDED AUGUST 31, 2010 AND 2009

COLLEGIUM RAMAZZINI, INC.  
(A NONPROFIT ORGANIZATION)  
COMBINING STATEMENTS OF REVENUE, EXPENSES  
AND NET ASSETS - CASH BASIS  
FOR THE YEARS ENDED AUGUST 31, 2010 AND 2009

AUGUST 31, 2009

	<u>UNRESTRICTED</u>	<u>PERMANENTLY RESTRICTED</u>	<u>COMBINED</u>
<u>REVENUE</u>			
Direct Public Support	\$ 1,667	\$	\$ 1,667
Membership Dues	9,568		9,568
Investment Income		1,606	1,606
Interest Income	<u>86</u>	<u></u>	<u>86</u>
<u>TOTAL REVENUE</u>	<u>11,321</u>	<u>1,606</u>	<u>12,927</u>
<u>EXPENSES</u>			
Accounting	3,100		3,100
Bank Charges	50	150	200
Bookkeeping	510		510
Office Expense	72		72
Depreciation Expense	298		298
Payment to Affiliates	8,000		8,000
Endowment Award		10,000	10,000
Consulting Service	5,000		5,000
Special Projects	3,000		3,000
Transportation Support Expense	5,300	186	5,486
Committee Expenses	<u></u>	<u>1,758</u>	<u>1,758</u>
<u>TOTAL EXPENSES</u>	<u>25,330</u>	<u>12,094</u>	<u>37,424</u>
<u>CHANGE IN NET ASSETS</u>	<u>(14,009)</u>	<u>(10,488)</u>	<u>(24,497)</u>
<u>NET ASSETS - BEGINNING OF YEAR</u>	<u>35,264</u>	<u>186,083</u>	<u>221,347</u>
<u>NET ASSETS - END OF YEAR</u>	<u>\$ 21,255</u>	<u>\$ 175,595</u>	<u>\$196,850</u>

AUGUST 31, 2010

	<u>UNRESTRICTED</u>	<u>PERMANENTLY RESTRICTED</u>	<u>COMBINED</u>
<u>REVENUE</u>			
Direct Public Support	\$ 2,605	\$	\$ 2,605
Membership Dues	26,632		26,632
Investment Income		227	227
Interest Income	<u>34</u>	<u></u>	<u>34</u>
<u>TOTAL REVENUE</u>	<u>29,271</u>	<u>227</u>	<u>29,498</u>
<u>EXPENSES</u>			
Accounting	4,900		4,900
Bank Charges	321	150	471
Bookkeeping	3,015		3,015
Office Expense	57		57
Depreciation Expense	298		298
Payment to Affiliates	2,000		2,000
Endowment Award			
Consulting Service	9,000		9,000
Special Projects	3,250		3,250
Transportation Support Expenses	6,400		6,400
Committee Expenses	<u></u>	<u>3,628</u>	<u>3,628</u>
<u>TOTAL EXPENSES</u>	<u>29,241</u>	<u>3,778</u>	<u>33,019</u>
<u>CHANGE IN NET ASSETS</u>	<u>30</u>	<u>(3,551)</u>	<u>(3,521)</u>
<u>NET ASSETS - BEGINNING OF YEAR</u>	<u>21,254</u>	<u>175,596</u>	<u>196,850</u>
<u>NET ASSETS - END OF YEAR</u>	<u>\$ 21,284</u>	<u>\$ 172,045</u>	<u>\$193,329</u>

See Accompanying Accountant's Compilation Report.

## **Collegium Ramazzini Education/ Training Committee**

### **Statement**

The Collegium Ramazzini encourages and advances education/training that emphasizes interdisciplinary and integrated approaches to occupational and environmental health sciences. Education/training should serve as an umbrella to integrate occupational and environmental health sciences across related relevant disciplines in basic sciences, clinical research, computational sciences and public health. The purpose is to sharpen the emphasis of education/training on the role of occupational and environmental exposures in human biology and disease, and to focus on pathophysiologic, clinical, and public health endpoints. A goal of the Collegium Ramazzini is to encourage education/training to better equip the next generation to work in the research teams of the future to solve critical problems in the environmental and occupational health sciences, while at the same time, providing the depth of knowledge multiple areas to prepare them to be able to build capacity in the environmental and occupational health sciences.

### **Background and Objective**

The Collegium Ramazzini, together with partnering organizations, encourages training and education associated with chronic, non-communicable diseases and disorders (NCDs) across the lifespan. Chronic non-communicable diseases are reaching epidemic proportions (Daar AS, *et al.*, Nature, 450 (22 Nov 2007): 494-496.) As the origin of and potential solutions to most chronic diseases are complex in nature, programs that strive to develop and provide training across disciplines (e.g., bridging biological, social, and behavioral sciences) are essential. This is a collaborative research training program between Collegium Ramazzini and institutions in low- and middle-income countries (LMICs, as defined by the World Bank classification system) that will sustainably strengthen the capacity of LMIC institutions and investigators to conduct research. The ultimate goal is to provide a solid foundation for development and implementation of evidence based interventions, relevant to NCDs across the life-span, in LMICs. In some cases sufficient evidence exists upon which to base research for interventions and implementation strategies. In other cases, the evidence base may not be well developed or not relevant to the given country or culture. Therefore, training across the spectrum of research disciplines is encouraged as needed, from basic biomedical, behavioral and social science to clinical and applied sciences, including translational and implementation science which emphasizes the resources, context and needs of multiple stakeholders in local settings.

Examples of the NCDs that could be addressed include, but are not limited to, cancer, cardio- and cerebrovascular disease and stroke, chronic lung disease, diabetes, mental illness, neurological, substance abuse, genetic disorders, birth defects and developmental disorders. Research training is encouraged that emphasizes lifecycle studies and early life determinants of chronic diseases (including genetic, epigenetic, and environmental and lifestyle factors), co-morbid conditions and common risk factors and interventions relevant to multiple conditions and their prevention.

### ***Burden of Disease***

Chronic NCDs are steadily increasing around the world, including in LMICs, and will soon account for more than 50% of the expenditures for health care and more than 60% of the disability adjusted life years (DALYs). For this reason, the Collegium Ramazzini plans to mobilize the scientific community to address the shifting global burden of disease and disability. According to the Disease Control Priorities Project (<http://www.dcp2.org/main/Home.html>) and World Health Organization (WHO) 44% of adult disease burden in LMICs is now attributable to non-communicable diseases and is projected to increase to 54% by 2030. Among the leading causes of death in LMICs in 2004 were cerebrovascular disease, ischemic heart disease, chronic obstructive pulmonary disease, lung cancer, diabetes, and hypertensive heart disease. Mental disorders such as depression, bipolar disorder, and schizophrenia and neurological disorders such as epilepsy, and neurodegenerative disorders along with genetic conditions, and intellectual and developmental disorders such as autism are among the leading causes of disability: [http://www.dcp2.org/file/64/WHO\\_DCPP%20mental%20health%20book\\_final.pdf](http://www.dcp2.org/file/64/WHO_DCPP%20mental%20health%20book_final.pdf).

According to the WHO estimation, death from stroke each year in LMICs accounted for more than 85% of stroke death world-wide. The number of DALYs caused by stroke in LMICs was also seven times higher than the number in high-income countries (HICs). Lung disease due to cigarette smoke (direct or indirect) or especially indoor air pollution at work or at home is rapidly increasing in both adults and children. WHO estimates by 2030, COPD will be among the four leading causes of death globally

([http://www.who.int/whosis/whostat2007\\_10highlights.pdf](http://www.who.int/whosis/whostat2007_10highlights.pdf)). According to WHO estimates, 210 million people currently have COPD, more than 3 million people died of COPD in 2005, corresponding to 5% of all deaths globally, and almost 90% of COPD deaths occur in LMICs (<http://www.who.int/mediacentre/factsheets/fs315/en/>).

Obesity is becoming a major component of the healthcare landscape in developing countries, even in countries where under nutrition is simultaneously present sometime even in the same family. According to WHO, 2.3 billion adults (age = 15 years) will be overweight and 700 million will be obese worldwide by 2015. In 2005, over 20 million children (< 5 years) were overweight globally. Overweight and obesity are risk factors for many chronic diseases that affect the quality of life and lead to premature mortality. Obesity, can for example, lead to hypertension, Type II diabetes, osteoarthritis, stroke, gall bladder disease, cancer and coronary artery disease.

Cancer is becoming more common, due at least in part to aging populations. More than 70% of all cancer deaths occur in LMICs, where resources available for prevention, diagnosis and treatment of cancer are limited or nonexistent. Based on projections, cancer deaths will continue to rise with an estimated 9 million people dying from cancer in 2015, and 11.4 million dying from cancer in 2030 (<http://www.who.int/cancer/en/>).

The bulk of factors that are responsible for onset of the chronic disease are so diverse that it is essential that those trained in these areas of research have broad understanding or work across disciplines that might include nutrition, business and the corporate sector, behavioral health, health law, economics, environmental health and urban planning. Most of the research training and research on chronic diseases has been conducted in High Income Countries (HICs) and it has seldom been multidisciplinary. The interactions between genetic and environmental risk factors

are critical in the ontogeny of many non-communicable diseases. Training/education programs are needed to strengthen research capacity by developing a pipeline of scientists in LMICs who will conduct transdisciplinary and implementation research in this field.

### ***The Need for a Multidisciplinary Approach***

Risk factors for NCDs are complex and differentially amenable to control. Environmental influences, lifestyle factors and diverse socio-economic influences and epigenetic changes interact with the proximal causes (such as genetic vulnerability, trauma and infection) of many chronic disorders to influence their trajectory and severity.

Increasing evidence for the prenatal and childhood roots of chronic NCDs provide possible avenues for early prevention of and intervention for NCDs. During the past several decades, improvements in health care have led to a decrease in child mortality and an increase in life expectancy in LMICs. However, many of the factors that previously contributed to early mortality remain and influence later health outcomes. These positive trends have, therefore, set the stage for a complex epidemiology of health and disease as more children survive into adulthood predisposed by early disease, malnutrition and adverse environmental and psychological influences and experiences to later development of chronic diseases such as cardiovascular and cerebrovascular disease, diabetes, cancer, mental illness, substance abuse, developmental and neurodegenerative diseases and disorders.

During the remainder of the lifecycle social and environmental factors such as environmental pollutants and chronic stress continue to influence health. However, individual behaviors and exposures such as physical inactivity, poor diet, tobacco, alcohol, and drug abuse become increasingly important risk factors influencing the trajectory of NCDs. It is critical to develop a deeper understanding of the complex motivations that contribute to decision making and risky behavior in resource poor settings.

In addition to generating evidence to prevent and treat chronic diseases, it is imperative that the research findings be incorporated into community practice in an efficient and timely manner. Because of the formidable gap between innovations in health and their delivery to communities, another goal of the Collegium Ramazzini is to bridge the training/education gap in implementation research. Implementation research is the scientific study of methods to promote the integration of research findings and evidence-based interventions into health care policy and practice with a greater emphasis on the resources and context of local care settings and the needs of multiple stakeholders. Training researchers in the nascent field of implementation science is strongly encouraged as part of research training in occupational and environmental health sciences.

The factors that are responsible for onset and prevention of chronic disease are so diverse that it is essential that those trained gain a broad understanding of research across health disciplines as diverse as genetics, medicine, nutrition, psychology, behavioral health, epidemiology, population studies, health law, environmental health, public health, etc. as well as many disciplines not traditionally associated with health research such as business administration, economics, urban planning, information science, communications, organizational and management theory, finance, individual and systems-level behavioral change, statistics, anthropology, learning theory,

marketing etc. The Collegium Ramazzini is specifically interested in encouraging and supporting research training in LMICs seeking to understand how relevant exposures to toxic occupational and environmental insults alter biologic processes, are linked to disease initiation or progression, or affect the risk of either disease development or distribution of disease in populations.

Examples of exposures relevant to the mission of the Collegium Ramazzini include industrial chemicals or manufacturing byproducts, metals, pesticides, herbicides, air pollutants and other inhaled toxicants, particulates or fibers, fungal or bacterially derived toxins, infectious agents, and indoor air pollutants from cooking and other sources.

### **Special Objectives and Considerations**

The Collegium Ramazzini encourages a lifespan approach to chronic diseases. Basic research should be integrated with research training on translation, applied and implementation science to meet the needs of the LMIC country. The support of trainees to conduct research should be multifaceted and novel training paradigms targeted to the special needs of LMIC investigators and institutions.

The objectives of the Collegium Ramazzini NCD/Lifespan education/training are:

- To strengthen the capacity of LMIC institutions to conduct NCD research and to train a cadre of experts who can assess the magnitude, etiology of, interventions for and other aspects of NCDs;
- To support multidisciplinary research training in basic through translation and implementation science to address NCDs;
- To develop a cadre of research experts who are most likely to contribute to science advances and affect clinical practice and public health policy in their country;
- To support training-related research (degree-related or mentored research projects) that is directly relevant to the health priorities of the LMIC and also to global environmental/occupational health;
- To strengthen the research and research training capacity required for success by building on existing research and public health programs in the LMIC; and
- To integrate, whenever possible, with other efforts to strengthen core research support capabilities needed to manage research and research training at LMIC institutions: including expertise in ethics and compliance issues, protection for human subjects, animal welfare, fiscal management, budgeting, program and grants administration, grant and report writing, preparation of scientific manuscripts, information technologies, technology transfer and management of intellectual property, data management, and Internet connectivity.

The Collegium Ramazzini encourages innovative research training/education models for NCDs, but typically the following types of training are included, but not limited to:

- ✓ Long-term (six months or longer) training for the full range of skills necessary to plan, conduct, manage and disseminate the results of research on NCDs with the understanding that the focus of thesis and training-related research will be in the LMIC country.

- ✓ Medium-term (three- to up to six-months) training or mentoring, which may include specialized research, policy or administrative/business skills necessary to conduct research that is planned or ongoing and translate results for interventions and policy.
- ✓ Short-term (less than three months) training or mentoring that focuses on research skills and methodology, laboratory skills necessary to support research, ethics and compliance issues, grant writing, peer review, preparation of scientific manuscripts, data management, technology transfer, medical informatics, and other relevant areas.
- ✓ Additional institutional capacity-building efforts are encouraged. These may include, but are not limited to, in-country training workshops in advanced techniques; distance learning; and interaction with other national and regional efforts to strengthen the ability of institutions to identify and undertake successful research and research training in NCDs to influence teaching, implementation and country policy.
- ✓ Advanced in-country mentored research undertaken by the trainee in his/her home country upon completion of his/her initial period of long-term training.

## **Conclusion**

The Collegium Ramazzini encourages and actively supports education and training activities designed to effectively produce leaders in the environmental and occupational health sciences, regardless of the setting, government, industry, or academia. The Collegium Ramazzini, together with partnering organizations, is emphasizing training and education associated with chronic, non-communicable diseases and disorders across the lifespan. In the future, the Collegium Ramazzini will place greater emphasis on education/training programs which can demonstrate success in developing and supporting scientists who establish successful research and training programs, and who contribute to the research in the environmental and occupational health sciences.

## **Collegium Ramazzini Education/ Training Committee members:**

**William A. Suk, Chair**

**Petra Bulat**

**Aleksandra Fucic**

**Lilian A. Corra**

**Stephen M. Levin**

**Jenny Pronczuk De Garbino**